

ABSTRACT

A male coupling half includes a male valve and a male body and the female coupling half includes a female valve and an inner body. The inner body is slidingly movable with respect to a housing or manifold. The female coupling half further includes a valve seated against a dump valve body which relieves pressure in the female half of the coupling to enable easy connection of the coupling halves. The male and female valves are locked in their open positions when the coupling halves are fully connected and the female half is pressurized which prevents reverse flow checking in either flow direction. During the disconnection process the male valve is closed before the coupling halves are separated which traps pressure in the male coupling half.